DOCUMENT RESUME

ED 187 439 PS 011 428

AUTHOR Benson, Charles S.
TITLE Household Production of Human Capital: Time Uses of Parents and Children as Inputs.
PUB DATE May 79
NOTE 49p.; Paper presented at the National Symposium, "Efficiency and Equity in Educational Finance," University of Illinois (Urbana-Champaign, IL, May 3, 1979).

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Academic Achievement; *Children; Educationally Disadvantaged; Educational Policy; *Educational Status Comparison; Elementary School Students; Fathers; Interviews; Mothers; *Parent Child Relationship; Parent Participation; Questionnaires; Social Class; *Socioeconomic Influences; *Socioeconomic Status
IDENTIFIERS *Coleman (James S)

ABSTRACT

The document investigates how socioeconomic status (SES) impinges upon student achievement. Research was conducted to test the association between (1) SES and the time parents spend with children; (2) SES and types of parent child interactions; and (3) (in order to control SES) the influence of amount of time and type of interaction upon student achievement. 764 sixth grade children from high, medium, and low SES were interviewed; their parents filled out a questionnaire. Results indicated that although high SES mothers and fathers had more time available for children than did low SES parents, higher SES mothers had less time available for their children than did low SES mothers. There was a positive relationship between high SES and time spent by both parents and children in various activities. Parent participation in school activities and in formally-organized activities outside the school was associated with high SES. There was no relationship between either SES and efforts of parents to inculcate good work habits, or SES and parental help with homework. No conclusion could be made about school achievement and patterns of time parents spend with their children. Educational policy issues which acknowledge that disparities between SES and educational achievement must be redressed are discussed. Four broad mechanisms to explain and correct these disparities are suggested as discussion guides: parent dominance, school dominance, neighborhood dominance, and social class dominance. (Author/DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED187439

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Household Production of Human Capital:

Time Uses of Parents and Children as Inputs

A Paper prepared for a National Symposium, "Efficiency and Equity in Educational Finance," University of Illinois at Urbana-Champaign, May 3, 1979.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Charles S. Benson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Charles S. Benson
Department of Education
University of California
Berkeley

PS011428

One of the most robust findings in social science is the existence of a close association between the socio-economic status of students' families and educational attainment of the students themselves. The best known research on the topic, the Coleman Report (1966), launched a series of studies of "educational production functions."[1] Though the statistical techniques employed by researchers in the last few years are considerably more advanced than those used by Coleman, these more sophisticated studies confirm the basic result that SES "determines" educational attainment.

It is a curiosity in educational policy that policy makers at both federal and state levels attribute power to reform in the distribution of educational resources that Coleman (and subsequent) evidence would appear to deny. So far at least, Coleman, not the reformers, is winning. Neither federally-financed compensatory education nor the rather ambitious efforts of a large number of states to reduce the effect of disparities in locally-taxable wealth on school district expenditures have served to remove the baleful influence (certain success stories excepted) of family background on performance of students in school.[2]

The Nature of the Relationship Between Social Class of Child and School Achievement

In recent times it is Professor Theodore Schultz who has drawn our attention to the creation and valuation of human capital.[3] The school, meaning all manner of formal education, is seen in human capital theory as a major agency in the development of skills and aptitudes. But we recognize as well that families create human capital, and we may also postulate that human capital

production may be affected by interactions between school and family and as among school, family and neighborhood. Indeed, one may also imagine that the family-and-child's view of the expected future place of the child in the social order may influence production of human capital.

In short, educational policy deserves clarification of a major point: how does SES impinge upon student achievement? I suggest for purposes of discussion that there are four broad mechanisms, not mutually exclusive.

1. The Parent-Dominant Model. This is the most straightforward and simple path of explanation. First, some parents have more time than others to give to their children. Second, some parents use time available for children in ways that are more effective in supporting school achievement than do other parents. For example, effective parents might read together with their children, visit libraries with them, help with homework, regulate meal and bed times, control TV watching, etc.

We might then presume that higher SES parents (1) have more time available for their children or (2) for whatever reasons, use available time in ways more supportive of school achievement than lower SES families (or both). The policy to flow from this model logically would be directed to parental behavior. That is, we would train and induce lower SES parents to take those actions that higher SES parents follow in promoting school achievement. A harsher policy would be to disqualify parents who do not spend enough time in supporting school achievement, or who spend it foolishly, from the privilege (or responsibility) of raising their children.

2. The School Dominant Model. On the other hand, it might be that school personnel, willingly or unwillingly, thwart the efforts of low SES families that have strong tastes for education. In that case, policy directed

toward changing the behavior of the individual low SES parent toward its child could be unavailing. The school-dominant model appears to occupy a central place in the writings of John U. Ogbu.[4] Ogbu maintains that teachers often are hostile to youth from low SES families and are unwilling to listen to comments from their parents when these parents try to explain why their children's school performance is not up to standard. Parents, according to Ogbu, are forced by teachers to adopt mannerisms and to pretend to attitudes that the teacher assumes to be typical of "low class" people.

Alternatively, one may imagine that some teachers, from feelings either of fear or compassion, are excessively permissive toward low SES children. The result could be that the child remains blissfully unaware that he/she is failing to meet acceptable standards of learning.

The policy implications of the school-dominant model might suggest that for modifications of behavior of low SES parents to be successful in promoting educational attainment of children, modifications in the attitudes and behavior of teachers are required as well. This is somewhat different from the standard compensatory education approach of using money in hiring more staff and supplies, i.e., to assume that the quantity, more than the composition, of educational resources is what will make the difference. It follows that conventional practices in measuring school quality by dollar expenditure per student may simply be missing the point. Schools may have powerful effects on children's development even though educational production function students attribute little power to school variables as ordinarily identified. But we should also admit the possibility that money inputs may become important after some kind of "take-off point" in students' performance is reached, i.e., beyond a threshold of student achievement and commitment to learning.

3. The Neighborhood-Dominant Model. It is unrealistic to assume that attitudes and actions are contained within the single family. In upper SES neighborhoods the child of the uncaring family may do well in school, on the average, because he is surrounded by children whose parents have the time to provide supporting services for their children and who have positive attitudes toward the usefulness of education when one enters the market place. Positive reinforcement from the majority of families in the neighborhood would "spill over" into the home of the family that chose not to pay much attention to its children.

Just the opposite might happen in low SES neighborhoods. The "spill over" from families that either were uncaring or (the larger number, presumably) unable to give educational support to their children could nullify the efforts of the families who did manage to act in a supportive way.

Education production functions studies have stressed the importance of the influence of a child's classmates, in particular the SES characteristics of those classmates, on the given child's school performance. What is suggested here is a much broader concept, in that we raise the possibility that inter-family spill-overs occur during all or most of the given child's waking hours. Spill-overs that take place out of school hours and during the summer months, indeed, could cancel the effects, one might presume, of changing the SES composition of a classroom (through a policy, say, of social class integration).

Household spill-overs to affect consumption patterns have been discussed in economic literature by Thorstein Veblen, James Duesenberry, J.K. Galbraith, and most recently, Tibor Scitovsky.[5] What we suggest here is that household externalities can affect household production as well as household consumption, specifically the production of human capital.

The point being made here is more inclusive than a statement to the effect that classroom performance is affected by one's peers, to use the terminology of educational production function studies. The "peer group" is the set of one's classmates and can be altered for a given child by busing and other means to achieve social class integration--or segregation. A child is in touch with such "peers" during class hours only, in the ordinary case. Influences in the neighborhood, on the other hand, impinge on the child during the remainder of his waking hours, and that remainder, it can reasonably be said, is the larger part of the child's life.

The policy implications of this model would probably stress an expanded provision of out-of-school activities, an essential component of which would be the attempt to develop favorable attitudes toward working hard in school. In other words, one would seek to neutralize the negative spill over of attitudes and actions that occurs in low-income neighborhoods.

4. The Class-Dominant Model. This model is basically an extension of the neighborhood dominant model. It suggests that even a unified neighborhood approach toward encouraging educational excellence in low SES neighborhoods is likely to be unavailing as long as our society is characterized by high rates of youth unemployment, the predominance of secondary labor market jobs in inner cities, and a very unequal distribution of income in general. As long as such conditions exist, it is virtually impossible to convince low-income youth that education has a meaning for themselves in the market place. Further, the absence of close contact, through older friends and siblings, with quality jobs creates an absence of information about the intellectual skills that are demanded in such kinds of work.

This model may be seen as an outcome of the writings of such authors as Samuel Bowles, Herbert Gintis, Henry Levin, Martin Carnoy and Michael Katz.[6]

They suggest that the educational system serves the capitalist economy by channeling persons into the work hierarchy in accordance with their class, encouraging attitudes of docility, submissiveness, and punctuality in lower class youth and encouraging attributes of creativity, imagination, and leadership in the progeny of the upper classes. In the process, the educational system fosters the belief that "what you get is what you deserve," thus reducing the possibility of violent conflict between the haves and the have nots. In this model the teacher is the prime agent of the sorting process, though just why the teacher so often and so willingly accepts this role is not wholly clear.

On the other hand, John Ogbu holds that poor work prospects do their damage directly on the student and his peers; thus, the teacher need not hold primary responsibility as agent of the screening process. Citing an impressive amount of evidence, Ogbu concludes: " . . . although blacks (to cite a minority group adversely affected by poverty) say they desire education and although they try in many ways to change the education system so that their children will receive better education, black students neither make sufficient efforts in their studies nor match their aspirations with accomplishments. This lack of serious effort has developed partly because they see their future opportunities for employment limited by the job ceiling."[7]

Policy to flow from the class dominant theory could hardly be confined to revision of educational programs or to changes in parental behavior. At the least it would include such measures as industrial siting controls and subsidies for youth employment. At the most, it would call for structural change in our economy. In between, it would recognize (a) that most people pursue education in order to get a good job; (b) there aren't going to be good jobs available for a substantial proportion of youth growing up in low SES

neighborhoods; and (c) accordingly, the incentives for low SES youth to invest in their futures is constantly being eroded. Then, measures should be taken to compensate such youth for the failures of our industrial order; these should be less isolating than our present welfare system.

Two References from the Time Budget Literature

We shall make a modest effort in this paper to suggest which one or ones of the above models is appropriate to explain the association between SES of students' families and their school attainment. The research on which we offer a preliminary report is in the time budget tradition. There is an extensive set of studies in that sub-field. Most of the authors are either economists or sociologists. One may mention Yoram Ben Porath, Joseph Hunt, James Heckman, Claire Vickery, William Garner, Alan Gustman, Alan Thomas, James Morgan, Russell Hill, Frank Stafford, Alice Rossi, Peter Lindert, and Reuben Gronau as persons who used time data in the analysis of family activities, school activities, or both. Space does not permit a review of that literature, though we have attempted such in another paper.[8] Here let us note two illustrative references only.

In a paper entitled "Child Endowments, and the Quantity and Quality of Children," Gary Becker and Nigel Tomes argue that children should allocate time to schooling on the basis (a) of the discounted value of the return in wages per unit of educational capital and (b) the marginal productivity of the student's time in increasing his stock of educational capital. Students who can look forward to good jobs should work hard in schools; others could presumably find a better use for their time. Fast learners should spend a lot of time on school work and school-related activities; slow learners might as well not. Further, parents will seek to equalize the marginal productivity

of their own time in supporting school progress of their children as amongst their different children; that is, the last hour of parental input on child k yields the same increment of learning as the last hour of parental input on child j, etc. Assuming the productivity ratios decline smoothly for successive additions of parental time, it is likely that faster learners will receive more parental inputs of time than slow learners.[9]

Implicit in the Becker-Tomes argument is the assertion that school attainment is a function of time inputs of the student and his/her parents. Presumably these time inputs would be directed in part toward homework and in part toward school-related activities, such as reading in a library, examining objects in a museum, etc.

The second reference to the time budget literature is made with regard to the work of Arlene Leibowitz. In an article entitled, "Parental Inputs and Children's Achievement," Leibowitz reported a negative relationship between size of family and children's language development and a positive relationship between mother's schooling and her child's test score.[10] Yet, the significance of mother's education dropped substantially in value when mother-child activities were entered into the regression analysis. Leibowitz concluded: "The effect of maternal education on verbal development may be attributed at least partly to the allocative effect. That is, more educated mothers are more likely to engage in those specific activities that promote verbal abilities. Thus, when measures of those specific activities are entered into the regression, the coefficient of maternal schooling becomes no longer significantly different from zero. Reading with children appears to be the activity that most promotes verbal skills, and TV viewing appears to be the activity most detrimental to those skills." Leibowitz, hence, indicates that it is not only the amounts of time that parents devote to their children that affects school achievement but also the types of parent-child interaction.

Some Questions and an Hypothesis

Recalling the Coleman finding that SES of household and children's achievement are closely related, we can draw from the Becker/Tomes/Leibowitz research the following questions for further empirical analysis:

(1) Does the availability of parents' time for children vary systematically by SES?

(2) Do patterns of parent-child interaction vary systematically by SES?

(3) Controlling for level of SES, do the amounts of time available and the patterns of parent-child interaction appear to have a significant association with school achievement of children?

From these questions we pose the hypothesis shown in Chart I. The points to be tested deal with the propensity of parents in different SES categories to contribute time in support of their children's school performance and with the distribution of school performance by SES category. The arrows in Chart I are intended to suggest that more high SES families will be found in cell (1) than in cell (2) or (3); that middle SES families will be distributed rather evenly among cells (4), (5), and (6); and that low SES families will be found in greater relative number in cell (9) than in (8) or (7). Thus, the first hypothesis is that time commitment of parents to children is an increasing function of SES.

The second hypothesis is that school achievement is jointly determined by time commitment of parents and by SES, as indicated by the plus and minus signs in the cells of Chart I. These hypotheses are obviously related to the four SES-achievement models discussed above. If our data are consistent with the result that parental time inputs are the strong factor in explaining school achievement, then the case for Model 1, the parent-dominant model, is enhanced. On the other hand, if data on parental time contributions explain relatively

CHART I

Hypotheses on Parental Time Inputs and Relative School Achievement, by SES Category

PARENTAL TIME / SES	HIGH INPUT	MEDIUM INPUT	LOW INPUT
HIGH	(1)$^{+++}$	(2)$^{++}$	(3)$^{+}$
MIDDLE	(4)$^{++}$	(5)$^{+}$	(6)$^{-}$
LOW	(7)$^{-}$	(8)$^{--}$	(9)$^{---}$

Key: +++ = many high achievers relative to low

++ = moderately large number of high achievers relative to low

\+ = slight majority of high achievers

\- = slight majority of low achievers

-- = moderately large number of low achievers relative to high

--- = many low achievers relative to high

little of the SES-achievement connection, then one might be inclined to consider one or more of the alternative models.

The Data Base

The sample on which we report here is a stratified random sample of sixth graders in Oakland, California, public schools. 764 students were interviewed in the Spring of 1976 and a parent (ordinarily the mother) was asked to fill out a questionnaire. The questions asked of both child and parent cover a broad range of subjects but the central focus was on a description of the out-of-school activities of the child and the involvement of the parent in those activities.

Sample response was excellent. Extraordinary care was taken in the training of interviewers and in monitoring the process of data collection. 24.2 percent of the respondents were white and 59.8 percent black. Reported family incomes were as follows:

Less than $3,000	47 (6.1%)
3,000 - 4,999	86 (11.2%)
5,000 - 7,999	82 (10.7%)
8,000 - 9,999	78 (10.2%)
10,000 - 14,999	122 (16.0%)
15,000 - 19,999	110 (14.4%)
20,000 - 24,999	73 (9.6%)
25,000 - 29,999	48 (6.3%)
Greater than 30,000	64 (8.4%)
Uncodable	54 (7.1%)

Parents' educational level (highest) were reported to be the following:

8th grade or less	80 (10.5%)
some high school	122 (16.0%)
high school graduate	203 (26.6%)
some college	170 (22.3%)
college graduate	74 (9.7%)
graduate of professional school	85 (11.1%)
uncodable	30 (3.9%)

In due course, the Children's Time Study Project, University of California, Berkeley, will publish extensively and in detail on the results of this survey. For this paper, I confine myself to time availability of parents, joint parent-child uses of time (in some cases as reported by both parent and child for the same set of activities), and the association of the above to student achievement. The measure of student achievement is the California Test of Basic Skills. Only achievement in English is reported, as the results for mathematics are similar.

SES categories for purposes of this paper are based on income and education both, specifically,

High SES — Income $\geq$ \$20,000
Education $\geq$ High School Graduate
N = 175

Middle SES — Income \$10,000 - 19,999
Education = all categories
N = 251

Low SES — Income $\leq$ \$10,000
Education $\leq$ some college
N = 278

Students' achievement categories on California Test of Basic Skills were established as follows:

High - greater than 1 standard deviation above mean
N = 88

Normal - the range from 1 standard deviation below mean to 1 standard deviation above, inclusive
N = 397

Low - less than 1 standard deviation below mean
N = 79

The distribution of students in the achievement categories is the following:

ACHIEVEMENT	SES Low	SES Middle	SES High
Low	51	23	5
Normal	174	145	78
High	10	46	32
Excluded From Test	43	37	60

Indexes of Time Activities of Children and Parents

Eight indexes of time availability and time use have been prepared. These are as follows.

1. Parents' Household Time Availability. This is an index constructed as a sum of the non-working hours of parents. Two-parent families, especially those in which one parent works less than full time, tend to rank higher than single parent families in this index. An adjustment is made if the work schedules are such that no parent is at home when the child comes home from school (negative). This is to recognize that there is in most families a "prime time" for child-parent interaction.

2. Mother's Household Time Availability. This is an index similar to 1. above, but only the hours of mother's time are entered.

3. Cultural Activity Index. (as reported by parent) This is an index constructed from variables of parents' working with children on hobbies, the parents' going to an event at the child's school, the parents' going with the child to a library, museum, play or concert, and the parents' trying to find an organized activity or lesson(s) for the child.

4. Cultural Activity Index. (as reported by the child) This index includes the child's going to church with mother or father, going to a library with mother or father, doing homework with parent, doing hobbies with parent, playing games with parent, going to museums, the zoo, the aquarium, the planetarium, Lawrence Hall of Science, and the redwood forests.

5. Household Time Index. (as reported by parent) This is based on parent-child activity in working around the house or yard, going together to a restaurant or coffee shop, shopping for groceries, visiting relatives or friends, going to movies or sports events, going to a park, and going on a vacation with the family.

6. Household Time Index. (as reported by the child) This covers the activities of the child with parent in doing the things listed in 5. above. In addition, the index includes the variable of eating dinner with parents, watching TV with parents, and whether TV is on during dinner (negative).

7. Parent Involvement Index. This index reflects the parents' willingness to spend time in supporting the child by getting involved with other parents and teachers. It includes the variables of belonging to the PTA, serving as room mother or doing regular volunteer work in the child's school, or serving as a leader or volunteer with any organized activities for children (e.g., Scouts, church group, Little League).

8. Parent Control Time Index. This index reflects the willingness of the parent to give time to controlling the activities and personal habits of children. It includes the variables on regularity of bedtime, whether the child is supposed to be in the house at a regular time for dinner on school days, whether the child is allowed to play outside on school nights, and whether the parent exerts guidance of the child's "free time."

The association of these eight time indexes with the SES index is reported below, as well as the association of the time indexes with school achievement by SES group. We also show the above associations with the single variable of the parents' helping the child with homework (as reported by the child).

Socio-Economic Status and Achievement Categories Further Considered

In this paper we have sought to provide a certain degree of separation in the SES and achievement categories. Considering SES, we now know that household income, while central to analysis, has become a somewhat ambiguous variable. If both parents work full time in low-quality jobs, the income of the household may be at a reasonably high level, even though the educational background of the parents is minimal. On the other hand, a highly educated single parent may have a rather low income. Hence, it is reasonable to say that both income and education variables must be considered jointly in studying the association of SES with school achievement.

Accordingly, we have defined high SES as high income and an educational level of high school graduate or more. Low SES likewise is low income and an educational level of less than college graduate.

With regard to achievement, we are plagued with two problems: (1) in any given year, certain children are not tested, and (2) the same child may show variation from one test period to the next. I thus choose to establish categories of high and low achievers as falling outside the range of one standard deviation from the mean. A student in the high group should be a genuine high achiever, not an accidental one, likewise for the low group.

Some Preliminary Results

We present results here first in the form of contingency tables. This allows us to see rather precisely the extent to which the time use indexes

follow an SES pattern (or do not). Secondly, use of contingency tables allows us to examine whether high, normal, or low achievers display different patterns of time use in their actual numbers, after we control for SES categories.

Table 1, Availability of Parents' Time to Children, by SES, shows that non-work time of parents is a positive function of SES. Approximately 68 percent of high SES families fall into the two higher time availability categories (categories 3 and 4), while only 28.5 percent of low SES families are found in these same categories. The relationship between time availability and SES is significant at the .01 level.

Table 2 indicates time availability of mothers alone. Here the SES relationship is also highly significant, but the direction of the relationship is reversed; that is, higher SES mothers have less time available for their children, on the average, than do low SES.

The fact that time availability of parents' time is positively related to SES while that of mother's is negatively related is explained, we believe, by the following three conditions: (1) there are relatively more single parent families in low SES groups than in high; (2) in Oakland at least, many higher income families have both parents working full time in the market place; (3) many of the low SES families include mothers who fall into the category of the unemployed.

Tables 3 and 4, dealing with parent-child cultural activities, may properly be viewed together. Whether reported by parent or by child, both indicate a positive relationsihp between prevalence of cultural activity and SES. In both instances, the relationship is statistically significant. It is worth noting, however, that many families appear not to conform to the

TABLE I

AVAILABILITY OF PARENTS' TIME TO CHILDREN, BY SOCIO-ECONOMIC STATUS

(N = 672)

Parents' Time Availability		SES Low	Middle	High
Low	1	86 (33.6)	65 (26.5)	21 (12.3)
	2	97 (37.9)	38 (15.5)	34 (19.9)
	3	22 (8.6)	68 (27.8)	82 (48.0)
High	4	51 (19.9)	74 (30.2)	34 (19.9)

Figures in parentheses = percentages arrayed vertically

$$\chi^2_6 = 115.520;\ p < .01$$

Source: Children's Time Study, Oakland Survey (1976)

TABLE 2

AVAILABILITY OF MOTHERS' TIME TO CHILDREN, BY SOCIO-ECONOMIC STATUS

(N = 678)

Mothers' Time Availability		SES Low	Middle	High
Low	1	81 (30.9)	111 (45.3)	94 (55.0)
	2	41 (15.6)	47 (19.2)	30 (17.5)
High	3	140 (53.4)	87 (35.5)	47 (27.5)

Figures in parentheses = percentages arrayed vertically

$X_4^2 = 35.514$; $p < .01$

Source: Children's Time Study, Oakland Survey (1976)

relationship. Thirty-nine low SES families (14.0 percent) fall into the highest cultural activity category (as reported by parents - Table 3) and 59 high SES families (33.7 percent) fall into the lowest two categories.

Likewise, in Tables 5 and 6, we find a positive relationship between household time and SES. In higher SES families, on the average, parents spend more time with children in going to restaurants, coffee shops, movie houses, parks, etc., and engaging themselves jointly in various kinds of household duties. Again, we should note that there are numbers of exceptions to the general relationship. Forty-five low SES families, (16.2 percent) as reported by parents, were in the highest time category (Table 5) and 28 high SES families (26.0) percent were in the lowest two time use categories. As reported by children (Table 6), 30 low SES families (11.5 percent) were in the highest two categories (on a scale of 8) and 31 high SES families (17.7 percent) were in the lowest two. SES dominates time use in the sorts of activities we are describing, so we might say that there is an upper class pattern of time use and a lower class one. However, should we say such a thing, we should also note that numbers of low SES families behave toward their children like high SES families do and numbers of high SES families behave like low SES ones.

Table 7 shows parental involvement in children's activities in school and in formally-organized activities outside school. The association of parental involvement with SES of family is extremely strong (though it should be noted still that 68 low SES families (24.4 percent) were in the highest two involvement categories). There is a special irony here. To serve as a volunteer in a school or in a child's program generally is more typically an activity of mothers than of fathers. We have seen that low SES mothers have more time available for children than do high SES. Yet, it is the

TABLE 3

PARENT-CHILD CULTURAL ACTIVITY INDEX, BASED ON PARENTS' STATEMENTS, BY SOCIO-ECONOMIC STATUS

(N = 704)

Cultural Activity Index (from Parent)		SES Low	Middle	High
Low	1	55 (19.8)	34 (13.5)	18 (10.3)
	2	84 (30.2)	59 (23.5)	41 (23.4)
	3	61 (21.9)	71 (28.3)	55 (31.4)
	4	39 (14.0)	55 (21.9)	37 (21.1)
High	5	39 (14.0)	32 (12.7)	24 (13.7)

Figures in parentheses = percentages arrayed vertically

$$\chi^2_8 = 19.455;\ p < .02$$

Source: Children's Time Study, Oakland Survey (1976)

TABLE 4

PARENT-CHILD CULTURAL ACTIVITY INDEX, BASED ON CHILDREN'S STATEMENTS, BY SOCIO-ECONOMIC STATUS

(N = 704)

Cultural Activity Index (from Child)		SES Low	Middle	High
Low	1	70 (25.2)	37 (14.7)	16 (9.1)
	2	51 (18.3)	27 (10.8)	16 (9.1)
	3	49 (17.6)	46 (18.3)	24 (13.7)
	4	65 (23.4)	61 (24.3)	41 (23.4)
	5	32 (11.5)	57 (22.7)	53 (30.3)
High	6	11 (4.0)	23 (9.2)	25 (14.3)

Figures in parentheses = percentages arrayed vertically

$$X^2_{10} = 61.719;\ p < .01$$

Source: Children's Time Study, Oakland Survey (1976)

TABLE 5

PARENT-CHILD HOUSEHOLD ACTIVITY INDEX,
BASED ON PARENTS' STATEMENTS, BY SOCIO-ECONOMIC STATUS

(N = 704)

Household Activity Index (From Parents)		SES		
		Low	Middle	High
Low	1	49 (17.6)	25 (10.0)	10 (5.7)
	2	51 (18.3)	28 (11.2)	18 (10.3)
	3	45 (16.2)	43 (17.1)	25 (14.3)
	4	46 (16.5)	41 (16.3)	37 (21.1)
	5	42 (15.1)	53 (21.1)	39 (22.3)
High	6	45 (16.2)	61 (24.3)	46 (26.3)

Figures in parentheses = percentages arrayed vertically

$$\underset{10}{X^2} = 33.425;\ p < .01$$

Source: Children's Time Study, Oakland Survey (1976)

TABLE 6

PARENT-CHILD HOUSEHOLD ACTIVITY INDEX,
BASED ON CHILDREN'S STATEMENTS, BY SOCIO-ECONOMIC STATUS

(N = 704)

Household Activity Index (From Child)		SES		
		Low	Middle	High
Low	1	30 (10.8)	29 (11.6)	15 (8.6)
	2	27 (9.7)	30 (12.0)	16 (9.1)
	3	56 (20.1)	37 (14.7)	20 (11.4)
	4	49 (17.6)	39 (15.5)	28 (16.0)
	5	53 (19.1)	29 (11.6)	27 (15.4)
	6	31 (11.2)	28 (11.2)	21 (12.0)
	7	24 (8.6)	42 (16.7)	34 (19.4)
High	8	8 (2.9)	17 (6.8)	14 (8.0)

Figures in parentheses = percentages arrayed vertically

$X^2_{14} = 29.377$; $p < .02$

Source: Children's Time Study, Oakland Survey (1976)

TABLE 7

PARENTAL INVOLVEMENT INDEX, BY SOCIO-ECONOMIC STATUS

(N = 704)

Parental Involvement Index		SES Low	Middle	High
Low	1	52 (18.7)	29 (11.6)	11 (6.3)
	2	89 (32.0)	59 (23.5)	27 (15.4)
	3	69 (24.8)	70 (27.9)	40 (22.9)
	4	46 (16.5)	48 (19.1)	49 (28.0)
High	5	22 (7.9)	45 (17.9)	48 (27.4)

Figures in parentheses = percentages arrayed vertically

$X_8^2 = 59.475$; $p < .01$

Source: Children's Time Study, Oakland Survey (1976)

high SES mothers who do a relatively larger share of the volunteer work.

Table 8 refers to the efforts of parents to control the lives of their children, that is, to inculcate regularity and "good work habits." Strikingly enough, there is no statistically significant relationship between SES and parental control time. One might have imagined, for example, that successful families would display efforts to establish a kind of puritan ethic in their progeny, or, alternatively, that low SES families would see strictness toward children as being especially important. Neither condition expresses itself strongly in the data.

Table 9 shows results on parents' helping with homework. As with parental control time, there is no statistically significant relationship between SES and the propensity of parents to try to assist their children in their school assignments.

Now, let us turn to the relationship between patterns of time use and school achievement, controlling for SES. Tables 10 through 12 offer the only instances in which time availability and time use indexes of our data hold a statistically significant relationship to achievement, as measured by the English component of the California Test of Basic Skills, even at the .10 level. Parents' time is positively related to achievement at the .10 level in the high SES category. Mother's time availability is significantly related to achievement at the .01 level in the high SES group, but the relationship is negative - the more of mother's time that is available, the lower, on the average, is the child's school achievement.

These results should not be interpreted literally to mean that mother's time spent with children diminishes school performance of those children. We have no longitudinal data to report. It is entirely possible, for example,

TABLE 8

PARENTAL TIME CONTROL INDEX, BY SOCIO-ECONOMIC STATUS

(N = 704)

Parental Control Time Index		SES Low	Middle	High
Low	1	55 (19.8)	54 (21.5)	34 (19.4)
	2	56 (20.1)	50 (19.9)	36 (20.6)
	3	61 (21.9)	66 (26.3)	30 (17.1)
	4	52 (18.7)	38 (15.1)	25 (14.3)
High	5	54 (19.4)	43 (17.1)	50 (28.6)

Figures in parentheses = percentages arrayed vertically

$X_8^2 = 12.759$; not significant

Source: Children's Time Study, Oakland Survey (1976)

TABLE 9

PARENT-CHILD SCHOOL HOMEWORK ACTIVITY,
BY SOCIO-ECONOMIC STATUS

(N = 680)

Did Parent(s) Help Child With Homework?	SES		
	Low	Middle	High
Yes	125 (47.7)	128 (52.5)	89 (51.1)
No	137 (52.3)	116 (47.5)	85 (48.9)

Figures in parentheses = percentages arrayed vertically

X_2^2 = 1.208: not significant

Source: Children's Time Study, Oakland Survey (1976)

TABLE 10

STUDENT ACHIEVEMENT AS RELATED TO AVAILABILITY OF PARENTS' TIME, BY SOCIO-ECONOMIC STATUS

Students	Availability of Parents' Time to Children				
	Low 1	2	3	High 4	
	(N = 171)				
High Achievers	1/(3.1)	5/(15.6)	22/(68.7)	4/(12.5)	High SES
Normal Achievers	15/(18.5)	16/(19.8)	35/(43.2)	15/(18.5)	$X^2_6 = 11.409$;
Excluded From Test	5/(8.6)	13/(22.4)	25/(43.1)	15/(25.9)	$p < .10$
	Low 1	2	3	High 4	
	(N = 245)				
High Achievers	14/(31.1)	6/(13.3)	10/(22.2)	15/(33.3)	Middle SES
Normal Achievers	35/(24.6)	25/(17.6)	42/(29.6)	40/(28.2)	$X^2_6 = 4.490$;
Low Achievers	8/(34.8)	5/(21.7)	3/(13.0)	7/(30.4)	
Excluded From Test	8/(22.9)	2/(5.7)	13/(37.1)	12/(34.3)	not significant
	Low 1	2	3	High 4	
	(N = 256)				
Normal Achievers	65/(38.5)	60/(35.5)	14/(8.3)	30/(17.8)	Low SES
Low Achievers	11/(22.4)	21/(42.9)	6/(12.2)	11/(22.4)	$X^2_6 = 6.960$;
Excluded From Test	10/(26.3)	16/(42.1)	2/(5.3)	10/(26.3)	not significant

Figures in parentheses = percentages arrayed horizontally

Source: Children's Time Study, Oakland Survey (1976)

TABLE 11

STUDENT ACHIEVEMENT AS RELATED TO AVAILABILITY OF MOTHER'S TIME, BY SOCIO-ECONOMIC STATUS

Students	Availability of Mother's Time to Children			
	(N = 171)			
	Low 1	2	High 3	
High Achievers	17/(53.1)	10/(31.2)	5/(15.6)	High SES
Normal Achievers	54/(65.9)	9/(11.0)	19/(23.2)	$X^2_4 = 15.172$;
Excluded From Test	23/(40.4)	11/(19.3)	23/(40.4)	$p < .01$
	(N = 245)			
	Low 1	2	High 3	
High Achievers	19/(42.2)	10/(22.2)	16/(35.6)	Middle SES
Normal Achievers	69/(48.9)	24/(17.0)	48/(34.0)	$X^2_4 = 5.947$;
Low Achievers	13/(56.5)	0/(0)	10/(43.5)	
Excluded From Test	10/(27.8)	13/(36.1)	13/(36.1)	not significant
	(N = 262)			
	Low 1	2	High 3	
Normal Achievers	56/(32.4)	31/(17.9)	86/(49.7)	Low SES
Low Achievers	12/(24.5)	7/(14.3)	30/(61.2)	$X^2_4 = 4.459$;
Excluded From Test	13/(32.5)	3/(7.5)	24/(60.0)	not significant

Figures in parentheses = percentages arrayed horizontally

Source: Children's Time Study, Oakland Survey (1976)

TABLE 12

STUDENT ACHIEVEMENT AS RELATED TO PARENT-CHILD CULTURAL ACTIVITY INDEX (REPORTED BY PARENT), BY SOCIO-ECONOMIC STATUS

Students	Cultural Activity Index (N = 175) Low 1	2	3	4	High 5	
High Achievers	2/(6.3)	3/(9.4)	13/(40.6)	8/(25.0)	6/(18.7)	High SES
Normal Achievers	9/(10.8)	28/(33.7)	25/(30.1)	15/(18.1)	6/(7.2)	$X^2_8 = 14.961$;
Excluded From Test	7/(11.7)	10/(16.7)	17/(28.3)	14/(23.3)	12/(20.0)	$p < .10$
	(N = 251) Low 1	2	3	4	High 5	
High Achievers	4/(8.7)	6/(13.0)	15/(32.6)	18/(39.1)	3/(6.5)	Middle SES
Normal Achievers	21/(14.5)	37/(25.5)	44/(30.3)	25/(17.2)	18/(12.4)	$X^2_8 = 18.084$;
Low Achievers	3/(13.0)	6/(26.1)	6/(26.1)	2/(8.7)	6/(26.1)	
Excluded From Test	6/(16.2)	10/(27.0)	6/(16.2)	10/(27.0)	5/(13.5)	$p < .05$
	(= 278) Low 1	2	3	4	High 5	
Normal Achievers	34/(18.5)	53/(28.8)	45/(24.5)	26/(14.1)	26/(14.1)	Low SES
Low Achievers	13/(25.5)	15/(29.4)	9/(17.6)	8/(15.7)	6/(11.8)	$X^2_8 = 4.065$;
Excluded From Test	8/(18.6)	16/(37.2)	7/(16.3)	5/(11.6)	7/(16.3)	not significant

Figures in parentheses = percentages arrayed horizontally

Source: Children's Time Study, Oakland Survey (1976)

that mother's time spent with children in the ages 0-3 is positively associated with later school success, but we have no means to assess that kind of relationship in the present study.

The cultural time index, as reported by the parent (though not as reported by the child) is significantly related to achievement at the .10 level in high SES families and at the .05 level for middle SES. In terms of bi-variate analysis, there are no other significant relationships. So far, then, the harvest of results on achievement is meager.

For interest, Table 13 shows the distribution for parental help with homework. No relations are significant. The meaning of this table could be the following: some parents use helping with homework as positive reinforcement toward school progress of higher achieving children and an approximately equal number of parents come to help with homework when they see that the child is in trouble in keeping up with the learning of his/her classmates.

Let us consider the bi-variate results in terms of the three questions we raised on page

(1) Are there differences in availability of time by SES?

Yes, but the signs are contrary for parents' and mother's time.

(2) Are there differences in uses of time by SES categories?

Yes, on the average, for cultural time, household time, and parental involvement. In these aspects of family life, higher SES parents are able and willing to give more of themselves to their children than are lower SES parents.

No, on the average, for parents' efforts to exert control of their children and to help them with homework.

(3) Controlling for SES, are there associations between values of these

TABLE 15

STUDENT ACHIEVEMENT AS RELATED TO PARENTS' HELPING WITH HOMEWORK, BY SOCIO-ECONOMIC STATUS

Students	Parent(s) Helps With Homework		
	(N = 174)		
	Helps	Does Not Help	
High Achievers	16/(50.0)	16/(50.0)	High SES
Normal Achievers	45/(54.9)	37/(45.1)	$X_2^2 = .956$;
Excluded From Test	28/(46.7)	32/(53.3)	not significant
	(N = 244)		
	Helps	Does Not Help	
High Achievers	18/(40.0)	27/(60.0)	Middle SES
Normal Achievers	72/(51.1)	69/(48.9)	$X_2^2 = 4.192$;
Low Achievers	14/(66.7)	7/(33.3)	
Excluded From Test	24/(64.9)	13/(35.1)	not significant
	(N = 262)		
	Helps	Does Not Help	
Normal Achievers	83/(48.0)	90/(52.0)	Low SES
Low Achievers	23/(48.9)	24/(51.1)	$X_2^2 = 0.136$;
Excluded From Test	19/(45.2)	23/(54.8)	not significant

Figures in parentheses = percentages arrayed horizontally

Source: Children's Time Study, Oakland Survey (1976)

indexes of time use and the placement of children in achievement categories?

Essentially, no. Bi-variate analysis, especially that which is based on composite indexes, has its limitations and to supplement the results shown above, we offer results from some basic multiple regression work. Taking CTBS English score as the dependent variable, we chose two SES variables, income and education, and a set of dummy time variables as independent. The time variables are described in Table 14, the correlation matrix. We sought to choose variables than on a priori grounds might have an important relationship to achievement. For example, if the mother is home after school, the mother has time to provide the child nurture; if the family uses the library, the family has an interest in written materials; if the family goes out to dinner together, it displays a degree of "warmth," or mutual concern, etc.

In Table 15, we see that for the total sample, using all eight independent variables, R^2 is significant at the .01 level. The two coefficients on SES are significant and so are the coefficients on "library" and "restaurant." Splitting the regressions into SES categories and dropping SES coefficients from the equation, we find that the value of R^2 for the high SES group is significant at the .05 level and the value of R^2 for the middle SES group is significant at the .01 level. No coefficients are significant in the case of the low SES category. Except for "mother home" and possibly homework (high SES only), the signs are all in the expected direction.

What is interesting is the relative power, statistical significance aside, of the involvement ("room mother"), control ("regular dinner times"), and homework variables in the middle SES group. Provisionally, it would seem the data are consistent with the following broad observations. (1) High SES children are likely to do well in school in any case, but intellectual stimulation and family warmth help them do even better. (2) For families in the middle

TABLE 14
CORRELATION MATRIX: SCHOOL ACHIEVEMENT & TIME VARIABLES

	GRADES	INCOME	EDUCATION	MOTHER HOME	LIBRARY	RESTAURANT	ROOM MOTHER	DINNER	HOME WORK
GRADES	1,000	.373	.332	-.066	.144	.235	.117	.136	.037
INCOME	.373	1,000	.415	-.161	.011	.239	.134	.126	-.027
EDUCATION	.332	.415	1,000	-.182	.044	.255	.184	.043	-.088
MOTHER HOME	-.066	-.161	-.182	1,000	.059	-.094	.174	.016	-.049
LIBRARY	.144	.011	.044	.059	1,000	.095	.126	.085	.039
RESTAURANT	.235	.239	.255	-.094	.095	1,000	.094	.069	.044
ROOM MOTHER	.117	.134	.184	.174	.126	.094	1,000	.062	-.124
DINNER	.136	.126	.043	.016	.085	.069	.062	1,000	.017
HOMEWORK	.037	-.027	-.088	-.049	.039	.044	-.124	.017	1,000

GRADES = English Score on California Test of Basic Skills

INCOME = Reported Family Income

EDUCATION = Educational Level of Adult Respondent (Ordinarily the Mother)

MOTHER HOME = Dummy Variable of whether Mother is Home in the Afternoon

LIBRARY = Dummy Variable on whether Child has gone to a Library with Adult in Last Month

RESTAURANT = Dummy Variable on whether Child has Gone to a Restaurant or Coffee Shop with an Adult in Last Month

ROOM MOTHER = Dummy Variable on whether Parent has Ever Served as Volunteer Room Mother in the Child's School

DINNER = Dummy Variable on Whether Child has a Definite Time for Dinner

HOMEWORK = Dummy Variable on whether Parent Regularly Helps Child with Homework

Source: Children's Time Study, Oakland Survey (1976)

TABLE 15

REGRESSION RESULTS OF TIME USE VARIABLES ON STUDENT ACHIEVEMENT

	TOTAL SAMPLE N = 540	HIGH SES N = 114	MIDDLE SES N = 206	LOW SE N = 22
MEAN OF CTBS ENGLISH SCORE	63.369	76.261	69.000	53.353
CONSTANT	26.983	69.091	48.750	45.923
FAMILY INCOME	2.709** (.455)			
PARENT'S EDUCATION	3.629** (.921)			
MOTHER HOME AFTER SCHOOL	.551 (1.906)	-3.133 (4.650)	-1.568 (3.640)	-2.988 2.591
CHILD TO LIBRARY WITH ADULT	5.719** (2.010)	13.690** (5.247)	4.117 (3.677)	2.126 (2.850
CHILD TO RESTAURANT WITH ADULT	5.348** (2.046)	11.430* (5.446)	10.662** (4.128)	4.202 (2.476
MOTHER IS ROOM MOTHER	1.082 (1.915)	1.324 (4.572)	6.183 (3.645)	.260 (2.562
CHILD HAS DEFINITE DINNER HOUR	3.564 (1.826)	2.021 (4.504)	4.678 (3.457)	3.949 (2.505
PARENT HELPS WITH HOMEWORK	2.510 (1.817)	-3.886 (4.345)	4.264 (3.443)	3.179 (2.446
R^2	.463	.323	.288	.227
S.E.E.	20.909	22.494	24.399	17.926
F RATIO FOR REGRESSION	18.357**	2.078*	3.004**	1.929

Figures in parenthesis are standard errors of coefficients

* < .05

** < .01

Source: Children's Time Study, Oakland Survey (1976)

(middle SES), that is for families at or beyond a "take-off" point in family development, family warmth, involvement and control count substantially in raising their children's achievement. (3) In low SES categories, the family is relatively impotent, though warmth, control, and helping with homework count for a little.

Observations and Qualifications

We are tempted to make some observations on our data. The reader may judge wherein we have over-extended ourselves.

The first point is that the relationship between parental inputs and school achievement is complex. We are not inclined to accept easy hypotheses that changes in parental behavior in the single household will alter achievement standards of the children of that household drastically. Other conditions in the context of the child's life appear to be important.

The second point is that power of parental action may be different in the different social classes.

To illustrate:

In the high SES category, only 5 of 115 children who took the CTBS received a score of less than one standard below the mean. Yet, we have seen that substantial numbers of high SES parents appeared to take minimal action to support the school progress of their children. Let us recall the various models to explain the relation of SES to achievement (pp.2-7 above) - parent dominant, school dominant, neighborhood dominant, and class dominant. Assume that some high SES parents play a neutral or negative role in helping their children. The other models, nevertheless, are all positive. The high SES child is easily understood and accepted in school; the child's friends and their families take action to support school achievement generally, and certainly

the child, his friends, and the adults of his/her acquaintance believe in the pay-off of educational accomplishment.

Consider now the lower SES group. Only 10 of 235 who took CTBS scored at a level higher than one standard deviation above the mean. Yet, we have seen that substantial numbers of low SES parents appear to take strong action to support the school achievement of their children. What goes wrong? It is entirely possible that the three models of schools, neighborhoods, and class operate in a negative way for lower SES children and cancel the efforts of the conscientious parents. The teachers may be either too suspicious, too fearful, or too tender (all of the above?); the neighborhood may provide spillovers that denigrate individual accomplishment, and the market place may provide signals to show that ordinary standards of achievement count for little in getting and keeping a good job.

The above comments are intended to suggest that parental action in high and low SES circles lack great power (a) to prevent a high SES child from doing rather well in school and (b) to help a low SES child find him/her self in a high achievement category. What of the middle group? Here it would appear that parental actions have power, at least relative to the other SES categories. In the middle SES group there are large numbers of families who are rising and large numbers who are falling in the social order. One's prospects are much less clear than in high or low SES groups. Likewise, the effects on the child of school, neighborhood, and class (meaning assessment of the worth of educational accomplishment) are themselves problematical. The parent in this confused situation becomes the more dominant force in determining children's achievement. When the parent helps, the child is likely to go up; when the parent fails to help, the child is likely to fall. Our data are consistent with the idea that parental action is relatively

the strongest in the middle SES group.

Some persons have suggested to the author that our conclusions are pessimistic, especially with regard to the possibilities of single low SES families to build a better life for themselves. We hold the contrary, that our conclusions, in their particular context, are optimistic. Oakland has been a depressed industrial city for most of the post-World War II period. It contains, nevertheless, a prosperous middle and upper middle class. A substantial number of persons in these classes is minority; many have risen in affluence in a very short span of time. Yet, their children do passing well in school, just as if they were "to the manor born." We hold that by the end of the century it is easier to imagine changes in our economic system to relieve the oppressive burden of poverty on families than it is to imagine the kind of re-making of family behavior that acceptance of the parent-dominant ypothesis would imply.

The premise of educational component of the war on poverty is as follows: we put extra resources in schools for low-income children; these children will do better in school and as a consequence, once grown, will break out of the vicious cycle of poverty. What we suggest is different: reduce the poverty context of the environment and school failure will disappear. If this alternative premise came to be accepted, we could remove from our thoughts that feckless families are the root cause of our social difficulties and that we should imagine we can change the behavior of low SES families by example and exhortation.

Now, briefly, for some qualifications of our results. We lack a control for ability, either as I.Q. or prior achievement. Because we did not know how to do so, we made no attempt to measure quality of time in parent-child interaction. We do not report yet on school effects, though we expect to do so

later. Lastly, these data refer to parent-child time use. Forthcoming manuscripts will include data on time uses of children alone and with other children, on TV usage, and on attitudes of parents and children.

Acknowledgments

The author wishes to make the following acknowledgments of aid in the preparation of this paper. Elliott Medrich is Project Director of the Children's Time Study Project and is responsible for the collection of data on which the paper is based. Other present and former members of the Project also provided valuable insights, namely, Mary Berg, Stuart Buckley, Shan Hernandez, Mary Milos, Anthony Rodriquez, and Victor Rubin. Lena Johnson is responsible for the computer programming. Outside the Project, I received additional assistance from Francine Blau, Jacqueline Fralley, Joan Haller, Christine Harris, E. Gareth Hoachlander, Terry Geske, Walter McMahon, Dorothy Merrick, Ina Spinka, David Stern, and Diana Thomason. None of the above is responsible for any errors.

Footnotes

1. James S. Coleman, et.al., Equality of Educational Opportunity, Washington, D.C., Government Printing Office, 1966.

2. Christopher Jencks, Who Gets Ahead?: The Determinants of Economic Success in America, New York, Basic Books, 1979, Ch. 3. For a somewhat contrary view, see Anita A. Summers and Barbara L. Wolfe, "Do Schools Make a Difference?" American Economic Review, Vol. 67, No. 4, September, 1977, pp. 639-652 and Anita A. Summers, "What Helps Fourth Grade Students Read?: A Pupil-Classroom-Program-Specific Investigation," Philadelphia, Federal Reserve Bank of Philadelphia, Research Paper No. 40, 1979, Tables 1 and 2.

3. Theodore S. Schultz, Investment in Human Capital, New York, The Free Press, 1971.

4. John U. Ogbu, Minority Education and Caste: The American System in Cross-Cultural Perspective, New York, Academic Press, 1978. On p. 133, Ogbu notes: "My research in Stockton reveals two . . . aspects of the problem connected with teacher attitudes and expectations. The first has to do with the kind of relationship between teachers and parents that prevents a mutual understanding of children's academic problems and what to do about them; the second has to do with teachers' evaluations of children's classroom performance which, among other things, prevents children from learning how their efforts are related to rewards in the form of marks and consequently prevents them from acquiring the good study or work habits necessary for maximizing both efforts and rewards." A similar point of view is presented in Thomas Sowell, Black Education: Myths and Tragedies, New York, David McKay Company, 1972, esp. pp. 234-235. The importance of the "school effect" is further developed in Michael Rutter, et.al., Fifteen Thousand Hours: Secondary Schools and Their Effects on Children, Cambridge, Harvard University Press, 1979.

5. Thorstein Veblen, The Theory of the Leisure Class, Viking Press, New New York, 1899.

   James S. Duesenberry, Income, Savings and the Theory of Consumer Behavior, Cambridge, Harvard University Press, 1949; J. Kenneth Galbraith, The Affluent Society, Boston, Houghton Mifflin Company, 1958; Tibor Scitovsky, "The Place of Economic Welfare in Human Welfare," The Quarterly Review of Economics and Business, Vol. 3, No. 3, Autumn, 1975.

6. Samuel Bowles and Herbert Gintis, Schooling in Capitalist America: Educational Reform and the Contradictions of Economic Life, New York, Basic Books, 1976; Martin Carnoy and Henry M. Levin, The Limits of Educational Reform, New York, David McKay Company, 1976; Michael B. Katz, The Irony of Early School Reform, Cambridge, Harvard University Press, 1968.

7. Ogbu, op.cit., p. 188. Essentially the same line of argument is taken in Richard H. deLove, Small Futures: Children, Inequality, and the Limits of Liberal Reform, New York, Harcourt, Brace, Jovanovich, 1979.

8. Charles S. Benson, "Time and How It Is Spent," in Charles S. Benson, et.al., eds. Future Research Directions for the Federal Government: Final Report of the Bay Area Education Finance Symposium, Washington, D.C., National Institute of Education, forthcoming.

9. Gary S. Becker and Nigel Tomes, "Child Endowments, and the Quantity and Quality of Children," Stanford, National Bureau of Economic Research, Working Paper, No. 123, 1976, pp. 11-13.

10. Arlene Leibowitz, "Parental Inputs and Children's Achievement," Journal of Human Resources, Vol. XII, No. 2, Spring, 1977, pp. 247-250.